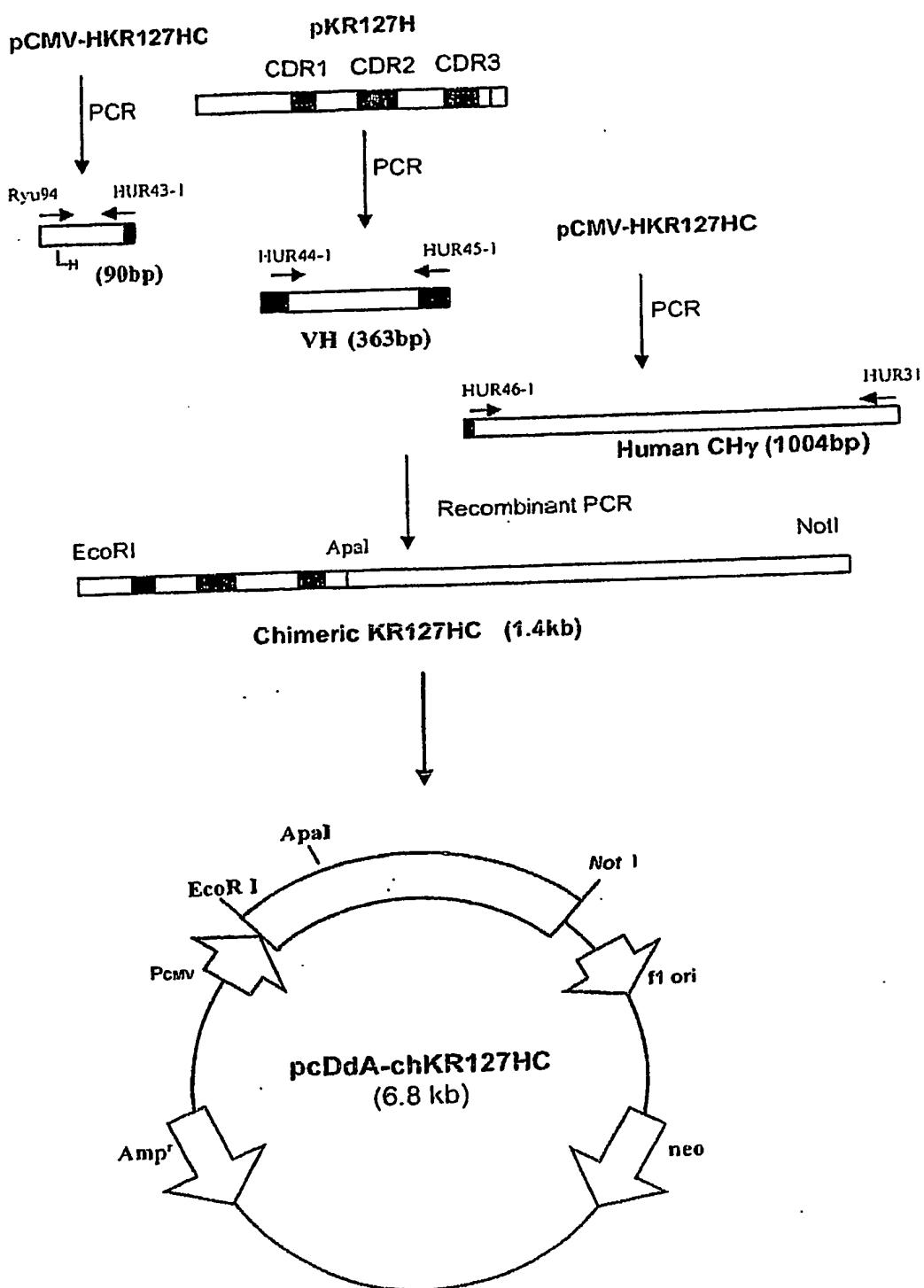


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FIG. 1



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## FIG. 2A

	Q V Q L Q Q S G P E L V K P
KR127VH	CAG GTC CAG CTG CAG CAG TCT GGA CCT GAA CTG GTG AAG CCT 42
	Q V Q L V Q S G A E V K K P
DP7	CAG GTG CAG CTG GTG CAG TCT GGG GCT GAG GTG AAG AAG CCT
HZ I	CAG GTC CAG CTG GTG CAG TCT GGA GCT GAA GTG GTG AAG CCT
HZ V11	CAG GTC CAG CTG GTG CAG TCT GGA GCT GAA GTG AAG AAG CCT
HZ I	- - - - V - - - A - V - - -
HZ V11	- - - - V - - - A - V K - -

	G A S V K I S C K A S G Y A
KR127VH	GGG GCC TCA GTG AAG ATT TCC TGC AAA GCT TCT GGC TAC GCA 84
	G A S V K V S C K A S G Y T
DP7	GGG GCC TCA GTG AAG GTT TCC TGC AAG GCA TCT GGA TAC ACC
HZ I	GGG GCC TCA GTG AAG GTT TCC TGC AAA GCT TCT GGC TAC GCA
HZ V11	GGG GCC TCA GTG AAG GTT TCC TGC AAA GCT TCT GGC TAC ACC
HZ I	- - - - V - - - - - - - - - -
HZ V11	- - - - V - - - - - - - - - T

	CDR1
	F S <u>S S W M N</u> W V K Q R P G
KR127VH	TTC AGT AGT TCT TGG ATG AAC TGG GTG AAG CAG AGG CCT GGA 126
	F T S Y Y M H W V R Q A P G
DP7	TTC ACC AGC TAC TAT ATG CAC TGG GTG CGA CAG GCC CCT GGA
HZ I	TTC AGT AGT TCT TGG ATG AAC TGG GTG CGA CAG GCC CCT GGA
HZ V11	TTC ACC AGT GCT TGG ATG AAC TGG GTG CGA CAG GCC CCT GGA
HZ I	- - - - - - - - R - A - -
HZ V11	- T - A - - - - R - A - -

	CDR2
	Q G L E W I G <u>R I Y P G D G</u>
KR127VH	CAG GGT CTT GAG TGG ATT GGA CGG ATT TAT CCT GGA GAT GGA 168
	Q G L E W M G I I N P S G G
DP7	CAA GGG CTT GAG TGG ATG GGA ATA ATC AAC CCT AGT GGT GGT
HZ I	CAG GGT CTT GAG TGG ATT GGA CGG ATT TAT CCT GGA GAT GGA
HZ V11	CAG GGT CTT GAG TGG ATG GGA CGG ATT TAT CCT AGT GGT GGA
HZ I	- - - - - - - - - - S G -
HZ V11	- - - - - M - - - - - - - - -



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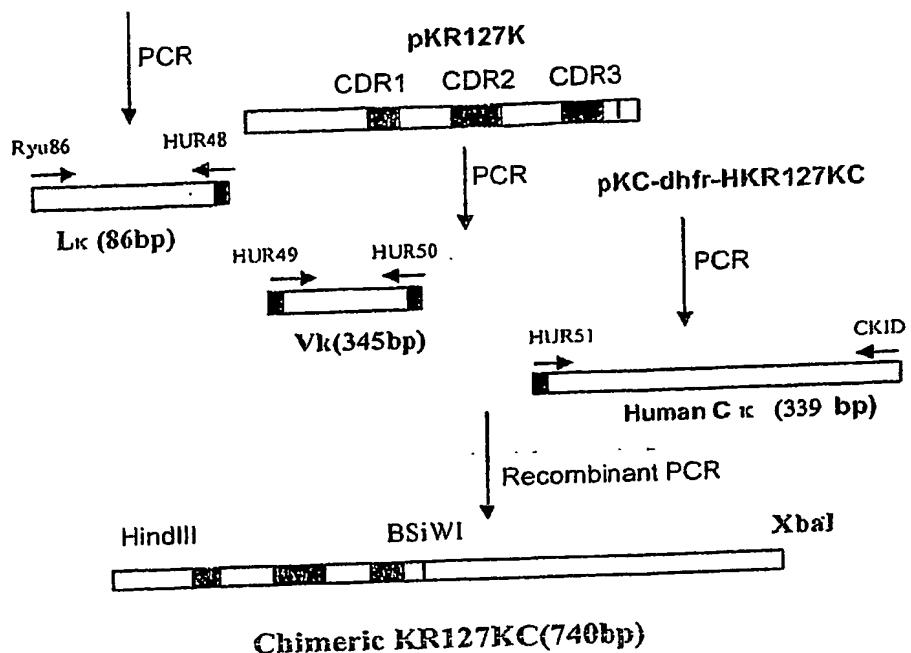
## FIG. 2C

	V	S	A
KR127VH	GTC	TCT	GCA
	V	S	S
HZI	GTC	TCT	TCA
HZVII	GTC	TCT	TCA
HZI	-	-	S
HZVII	-	-	S

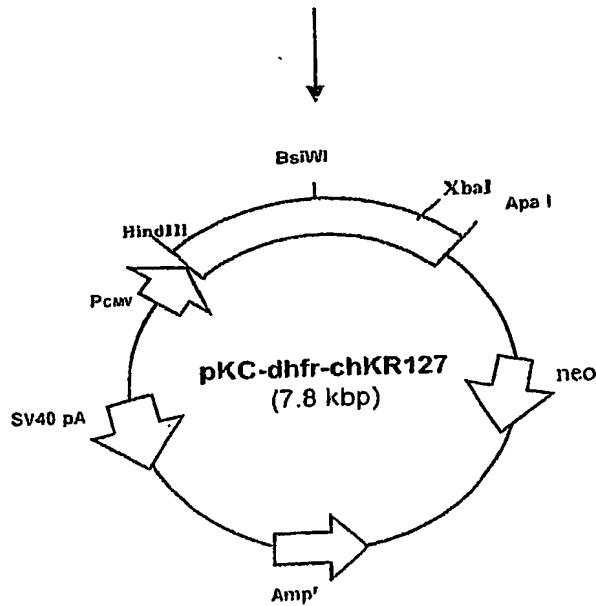
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FIG. 3

## pKC-dhfr-HKR127KC



## Chimeric KR127KC(740bp)



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## FIG. 4A

	D I L M T Q T P L I L S V T
KR127VK	GAT ATC TTG ATG ACC CAA ACT CCA CTT ATT TTG TCG GTT ACC 42
	D I V M T Q T P L S L S V T
DPK12	GAT ATT GTG ATG ACC CAG ACT CCA CTC TCT CTG TCC GTC ACC
HZI	GAT ATC TTG ATG ACC CAA ACT CCA CTT TCT TTG TCG GTT ACC
HZIV	GAT ATC GTG ATG ACC CAA ACT CCA CTT TCT TTG TCG GTT ACC
HZI	- - - - - - - - - S - - - - -
HZIV	- - V - - - - - S - - - - -

## CDR1

	I G Q P A S I S C K S S Q S
KR127VK	ATT GGA CAA CCA GCC TCT ATC TCT TGC AAG TCA AGT CAG AGC 84
	P G Q P A S I S C K S S Q S
DPK12	CCT GGA CAG CCG GCC TCC ATC TCC TGC AAG TCT AGT CAG AGC
HZI	CCT GGA CAA CCA GCC TCT ATC TCT TGC AAG TCA AGT CAG AGC
HZIV	CCT GGA CAA CCA GCC TCT ATC TCT TGC AAG TCA AGT CAG AGC
HZI	P - - - - - - - - - - - - - - -
HZIV	P - - - - - - - - - - - - - - -

## CDR1

	<u>L L Y S N G K T Y L N W L L</u>
KR127VK	CTC TTA TAT AGT AAT GGA AAA ACC TAT TTG AAT TGG TTA TTA 126
	L L H S D G K T Y L Y W Y L
DPK12	CTC CTG CAT AGT GAT GGA AAG ACC TAT TTG TAT TGG TAC CTG
HZI	CTC TTA TAT AGT AAT GGA AAA ACC TAT TTG AAT TGG TTA TTA
HZIV	CTC TTA TAT AGT AAT GGA AAA ACC TAT TTG AAT TGG TTA TTA
HZI	- - - - - - - - - - - - - - -
HZIV	- - - - - - - - - - - - - - -

## CDR2

	Q R P G Q S P K R L I Y <u>L V</u>
KR127VK	CAG AGG CCA GGC CAG TCT CCA AAG CGC CTA ATC TAT CTG GTG 168
	Q K P G Q P P Q L L I Y E V
DPK12	CAG AAG CCA GGC CAG CCT CCA CAG CTC CTG ATC TAT GAA GTT
HZI	CAG AAG CCA GGC CAG TCT CCA AAG CGC CTA ATC TAT CTG GTG
HZIV	CAG AAG CCA GGC CAG CCT CCA CAG CGC CTA ATC TAT CTG GTG
HZI	- K - - - - - - - - - - - - - - -
HZIV	- K - - - P - Q - - - - - - - - -

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## FIG. 4B

CDR2

	S	K	L	D	S	G	V	P	D	R	F	T	G	S
KR127VK	T	C	T	G	A	C	T	G	T	C	G	A	G	T
DPK12	T	C	A	A	C	G	G	T	T	C	G	A	G	C
HZ1	T	C	A	A	C	G	T	G	G	T	C	G	A	G
HZ1V	T	C	A	A	C	G	T	G	G	T	C	G	A	G
HZ1	-	-	-	-	-	-	-	-	-	-	-	S	-	-
HZ1V	-	N	R	-	-	-	-	-	-	-	-	S	-	-

	G	S	G	T	D	F	T	L	K	J	I	R	V	E
KR127VK	G	G	A	T	C	G	A	C	A	T	A	T	G	G
DPK12	G	G	A	G	G	A	G	T	T	C	A	G	C	G
HZ1	G	G	A	C	A	G	T	T	A	C	A	G	A	G
HZ1V	G	G	A	C	A	G	T	T	A	C	G	A	G	G
HZ1	-	-	-	-	-	-	-	-	-	-	S	-	-	-
HZ1V	-	-	-	-	-	-	-	-	-	-	S	-	-	-

CDR3

	A	E	D	L	G	V	Y	Y	C	V	Q	G	T	H
KR127VK	G	C	T	G	A	G	T	T	G	T	T	A	C	A
DPK12	G	C	G	A	G	G	T	T	T	A	T	C	A	G
HZ1	G	C	G	A	G	G	T	T	T	A	T	G	C	A
HZ1V	G	C	G	A	G	G	T	T	T	A	T	G	C	A
HZ1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HZ1V	-	-	-	-	-	-	-	-	-	-	-	-	-	-

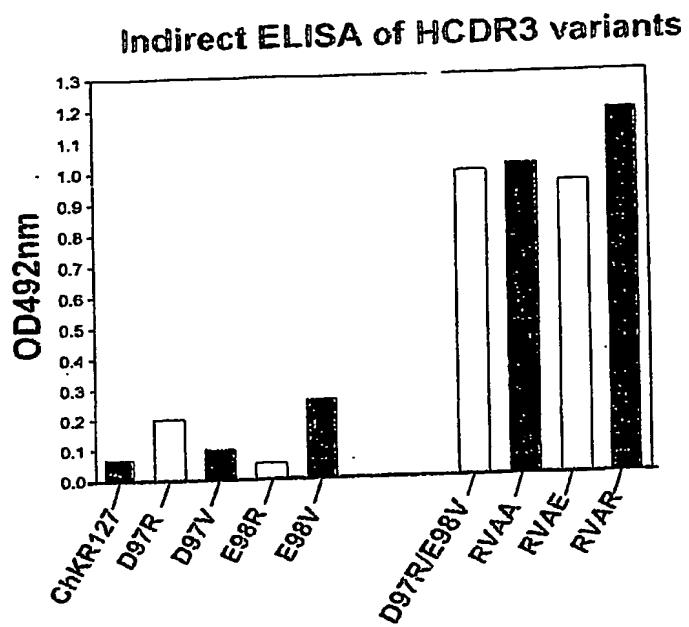
CDR3

	F	P	Q	T	F	G	G	G	T	K	L	E	I	K
KR127VK	T	T	T	C	C	T	A	G	C	A	G	T	G	A
DPK12	C	T	T	C	C	T	F	G	G	G	T	K	V	E
HZ1	T	T	T	C	C	T	A	G	G	G	T	K	V	E
HZ1V	T	T	T	C	C	T	A	G	G	G	T	G	A	A
HZ1	-	-	-	-	-	-	-	-	-	-	-	V	-	-
HZ1V	-	-	-	-	-	-	-	-	-	-	-	V	-	-

(JK4)

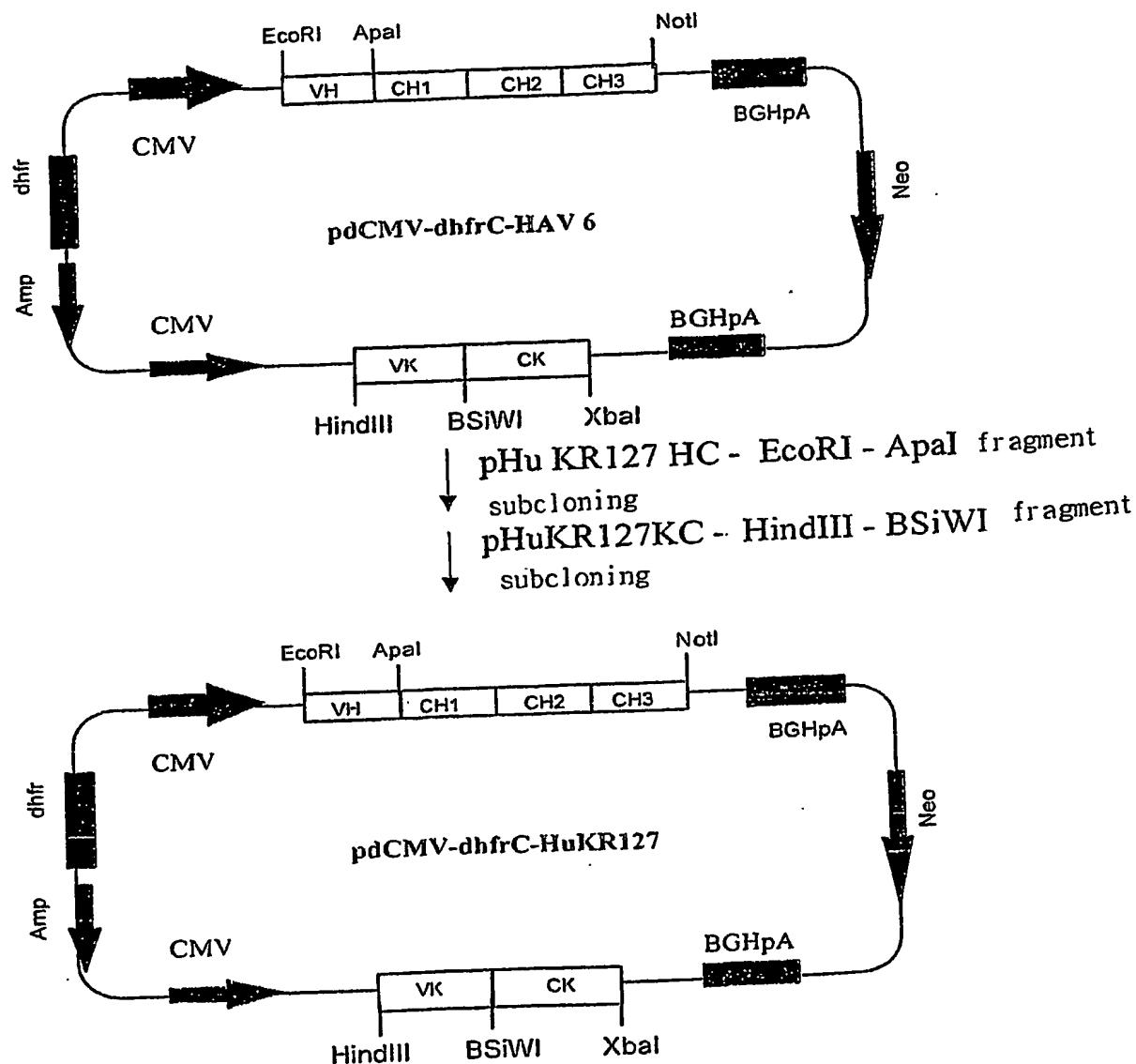
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FIG. 5



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FIG. 6



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FIG. 7

Klotz plot

